

Miramar Water Treatment Plant Upgrade and Expansion Construction Update July 2009

Contract B (Please see photo at end)

- Construction began in November 2007 and is estimated to be completed in January 2010. The work is on schedule and is 95 percent complete.
- The contractor is Western Summit Constructors, Inc. Contract B work has had an excellent safety record.
- Work continues on constructing the four new flocculation/sedimentation basins (floc-sed basins). The floc-sed basins are a critical part of water treatment. In the basins, particles in the water are forced to clump together (flocculation) to form larger particles and then settle to the bottom of a tank (sedimentation). The unwanted particles are then removed.
- The four existing flocculation/sedimentation basins are numbered 1, 2, 3 and 4. The new basins are numbered 5, 6, 7 and 8. Both the old and new basins are made of concrete. The dimensions of the new basins are 550 feet by 260 feet and 19 feet deep.
- Once the concrete work was completed, crews began installing the equipment in each basin for the treatment process. The concrete work on new basins 5, 6, 7 and 8 is completed. The floc-sed equipment is now installed in basins 6, 7 and 8. The equipment installation will be completed in basin 5 at the end of July.
- The new plant interior roadway has been paved around the north half of the site. The south half of the roadway will be paved after demolition of the existing basins.
- Water treatment at the plant is being provided by a combination of the four existing floc-sed basins and new basins 6, 7 and 8. After satisfactory operation of the three new basins for 30 days, the existing basins will be completely taken out of service and the final pipe connection made to basin 5. Then basin 5 will be filled with water and tested before it becomes operational. This is expected to occur in late August.
- The existing floc-sed basins will be demolished after they are taken out of service. The old chlorine building will be demolished at the same time. Demolition is expected to begin in late August and take approximately two to three months.
- The contractor will adhere to all noise level requirements during the demolition activity. Much of the concrete removed from the old structures will be crushed on-site. Steel rebar will be separated from the concrete prior to crushing.
- The demolished materials will be removed and taken to industrial materials recycling centers. The contractor will provide dust control on-site by water spraying and other measures. Rattler plates will be in place inside of the entry

gate to minimize dirt tracking onto surface streets while the demolition work is occurring.

- The large pile of earth visible at the west end of the plant property will be used to fill in the holes where the old floc-sed basins were located. The earth pile should not be visible after December 2009.

Photo explanation:

New sedimentation basin 6 is in the central foreground of this photo. The plate settlers are visible on the top of the basin and appear to nearly cover the top of the basin. The plate settlers help the unwanted particles in the water sink to the basin floor where they can be removed. New sedimentation basins 7 and 8 are visible in the upper middle and right side of the photo. (Photo July 14, 2009)



Contract C (Please see photo at end)

- Construction began in May 2008 and is estimated to be completed in March 2010. The work is on schedule.
- The contractor is Archer Western Contractors, LTD. Contract C work has had an excellent safety record.
- The primary work of Contract C is to furnish and install the ozone disinfection equipment. Ozone will be used to disinfect the water at the plant and is a highly effective way to eliminate any germs and viruses in drinking water. Currently chlorine is used to disinfect the water.
- After the new ozonation process is operational, significantly smaller amounts of chlorine will be added to the fully treated water as the water leaves the plant for the distribution system. The chlorine will provide a disinfectant “residual” so that the water remains disinfected in the storage tanks and pipelines prior to being used by customers.
- The ozonation equipment is being installed in the underground ozonation building, which at this time somewhat resembles a large, underground parking lot.
- The contractor has installed the concrete pads which will support the liquid oxygen tanks and electrical conduits for the new equipment. Piping for the ozonation system is arriving and being installed in the ozonation building.

- The major ozonation equipment has been fabricated and is currently being tested at locations in Ohio, New Hampshire and Kentucky. This equipment will be arriving on-site in September.
- The electrical and piping connections to the ozonation equipment need to be installed before testing on the system can begin.

Photo Explanation:

As piping and equipment arrives, it is stored in the ozonation building generator room. Later it will be assembled and connected to the ozonation equipment. The ozone generators will be placed on top of the concrete pads visible on the floor. (Photo June 30, 2009)

